

or a pharmaceutically acceptable derivative thereof,

wherein R_1 , R_2 , and R_3 are each independently H, linear or branched chain alkyl, optionally substituted by hydroxy, substituted or unsubstituted alkoxy, substituted or unsubstituted carboxy, carboxaldehyde, substituted or unsubstituted, linear or branched alkyl or cyclic acetal, fluorine, NR_4R_5 , N-hydroximino, or N-alkoxyimino, wherein R_4 and R_5 are independently H, phenyl, benzyl, linear or branched chain alkyl;

R'' is $-CY=CHX$, or H, linear or branched chain alkyl, phenyl, or 2-methyl-1,3-thiazol-4-yl, wherein X is H, linear or branched chain alkyl, phenyl, or 2-methyl-1,3-thiazol-4-yl, and Y is H or linear or branched chain alkyl;

Z is O, $N(OR_6)$ or $N-NR_7R_8$, wherein R_6 , R_7 and R_8 are independently H or a linear or branched chain alkyl or alkoxy; and

n is 0, 1, 2, or 3.

Please cancel claims 2-58.

Please add the following new claims 59-150:

59. The compound of claim 1, wherein R_1 = hydrogen, methyl, ethyl, propyl, hexyl, 2-(1,3-dioxolanyl)methyl, hydroxymethyl or hydroxypropyl.

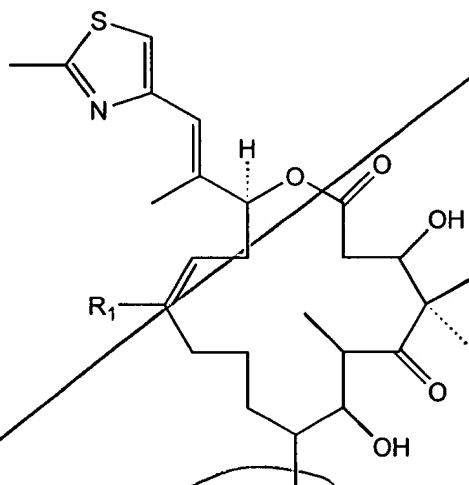
60. The compound of claim 1, wherein Z = O.

4/ 61. The compound of claim 1, wherein R_2 is hydrogen, and R_3 is methyl.

5/ 62. The compound of claim 1, wherein $n = 3$.

6/ 63. The compound of claim 1, wherein R'' is $-CY=CHX$, and X is 2-methyl-1,3-thiazol-4-yl, and Y is H.

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64. A purified compound having the structure:



or a pharmaceutically acceptable derivative thereof,

wherein R_1 is H, linear or branched chain alkyl, optionally substituted by hydroxy, substituted or unsubstituted alkoxy, substituted or unsubstituted carboxy, carboxaldehyde, substituted or unsubstituted, linear or branched alkyl or cyclic acetal, fluorine, NR_4R_5 , N-hydroximino, or N-alkoxyimino, wherein R_4 and R_5 are independently H, phenyl, benzyl, linear or branched chain alkyl.

8/ 65. The compound of claim 64, wherein R_1 is substituted or unsubstituted, linear or branched chain alkyl.

9/ 66. The compound of claim 64, wherein R_1 is linear or branched chain alkyl, optionally substituted by hydroxy, fluorine, cyclic acetal, or NR_4R_5 , wherein R_4 and R_5 are independently H, phenyl, benzyl, or linear or branched chain alkyl.

100/ 67. The compound of claim 64, wherein R_1 is linear or branched chain alkyl substituted by fluorine.

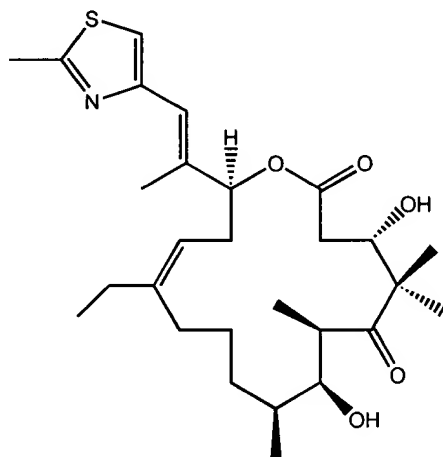
111/ 68. The compound of claim 64, wherein R_1 is linear or branched chain alkyl substituted by hydroxy.

A² 112/ 69. The compound of claim 64, wherein R_1 is linear or branched chain alkyl substituted by NR_4R_5 , wherein R_4 and R_5 are independently H, phenyl, benzyl, or linear or branched chain alkyl.

113/ 70. The compound of claim 64, wherein R_1 is linear or branched chain alkyl substituted by cyclic acetal.

141/ 71. The compound of claim 64, wherein R_1 is linear or branched chain alkyl substituted by a substituted carboxy group.

115/ 72. The compound of claim 64, wherein R_1 is ethyl, and the compound has the structure:

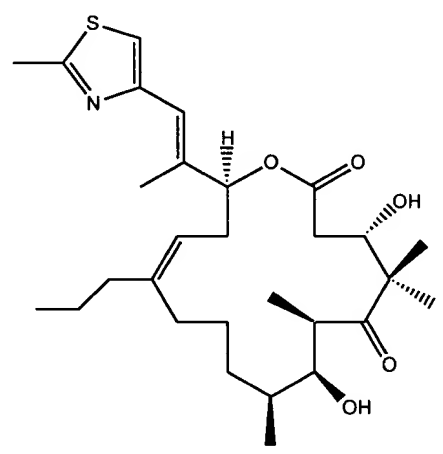


116/ 73. The compound of claim 64, wherein R_1 is propyl and the compound has the structure:

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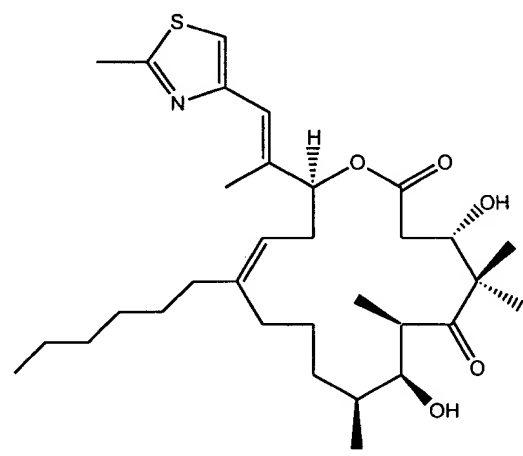
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The compound of claim 64, wherein R₁ is hexyl and the compound has the structure:

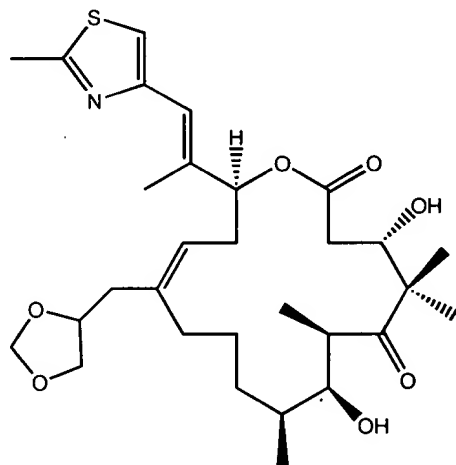
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75. The compound of claim 64, wherein R₁ is 2-(1,3-dioxolanyl)methyl and the compound has the structure:

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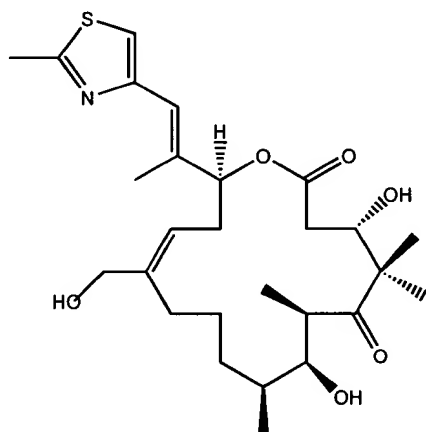
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76. The compound of claim 64, wherein R₁ is hydroxymethyl and the compound has the structure:

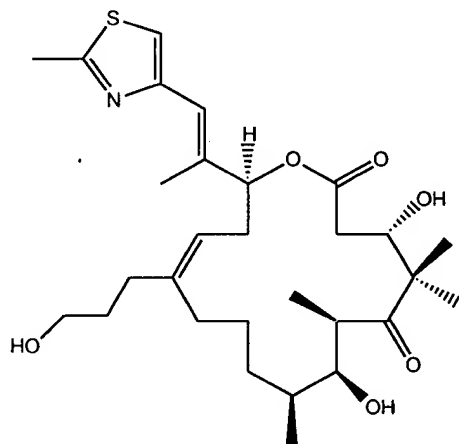


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77. The compound of claim 64, wherein R₁ is hydroxypropyl and the compound has the structure:



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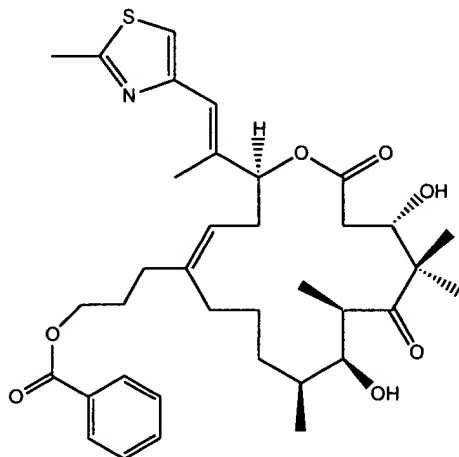
The compound of claim ~~64~~, wherein R_1 is a linear or branched chain alkyl substituted by aroyloxy.

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79.

The compound of claim ~~64~~, wherein R_1 is a linear or branched chain alkyl substituted by substituted or unsubstituted benzoyloxy.

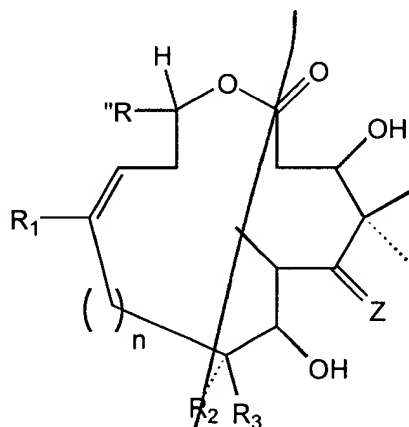
23
80.

The compound of claim ~~64~~, wherein R_1 is a propyl group substituted by benzoyloxy, and the compound has the structure:

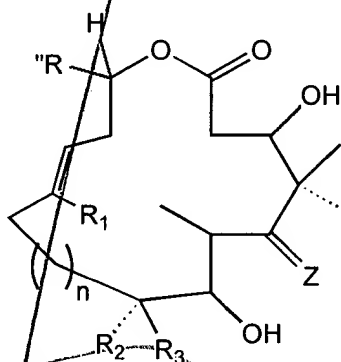


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A pharmaceutical composition comprising:
a compound having the structure:



or a compound having the structure:



or a pharmaceutically acceptable derivative thereof,

wherein R_1 , R_2 , and R_3 are each independently H, linear or branched chain alkyl, optionally substituted by hydroxy, substituted or unsubstituted alkoxy, substituted or unsubstituted carboxy, carboxaldehyde, substituted or unsubstituted, linear or branched alkyl or cyclic acetal, fluorine, NR_4R_5 , N-hydroximino, or N-alkoxyimino, wherein R_4 and R_5 are independently H, phenyl, benzyl, linear or branched chain alkyl;

R'' is $-CY=CHX$, or H, linear or branched chain alkyl, phenyl, or 2-methyl-1,3-thiazol-4-yl, wherein X is H, linear or branched chain alkyl, phenyl, or 2-methyl-1,3-thiazol-4-yl, and Y is H or linear or branched chain alkyl;

Z is O, $N(OR_6)$ or $N-NR_7R_8$, wherein R_6 , R_7 and R_8 are independently H or a linear or branched chain alkyl or alkoxy; and

n is 0, 1, 2, or 3; and

a pharmaceutically acceptable carrier,

said composition optionally further comprising a cytotoxic agent.

25 24
82. The compound of claim 81, wherein R_1 = hydrogen, methyl, ethyl, propyl, hexyl, 2-(1,3-dioxolanyl)methyl, hydroxymethyl or hydroxypropyl.

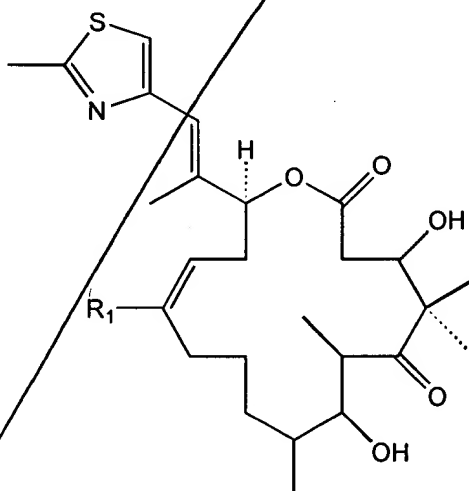
26 24
83. The pharmaceutical composition of claim 81, wherein in the compound $Z = O$.

27 24
84. The pharmaceutical composition of claim 81, wherein in the compound R_2 is hydrogen, and R_3 is methyl.

28 24
85. The pharmaceutical composition of claim 81, wherein in the compound $n = 3$.

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86. The pharmaceutical composition of claim 81, wherein in the compound R'' is $-CY=CHX$, and X is 2-methyl-1,3-thiazol-4-yl, and Y is H.

Sub By 87. A pharmaceutical composition comprising:
a compound having the structure:



or a pharmaceutically acceptable derivative thereof,
wherein R_1 is H, linear or branched chain-alkyl, optionally substituted by hydroxy, substituted or unsubstituted alkoxy, substituted or unsubstituted carboxy, carboxaldehyde, substituted or unsubstituted, linear or branched alkyl or cyclic acetal, fluorine, NR_4R_5 , N-hydroximino, or N-alkoxyimino, wherein R_4 and R_5 are independently H, phenyl, benzyl, linear

or branched chain alkyl; and

a pharmaceutically acceptable carrier,

said composition optionally further comprising a cytotoxic agent.

31/88. The pharmaceutical composition of claim 87, wherein in the compound R_1 is substituted or unsubstituted, linear or branched chain alkyl.

32/89. The pharmaceutical composition of claim 87, wherein in the compound R_1 is linear or branched chain alkyl, optionally substituted by hydroxy, fluorine, cyclic acetal, or NR_4R_5 , wherein R_4 and R_5 are independently H, phenyl, benzyl, or linear or branched chain alkyl.

33/90. The pharmaceutical composition of claim 87, wherein in the compound R_1 is linear or branched chain alkyl substituted by fluorine.

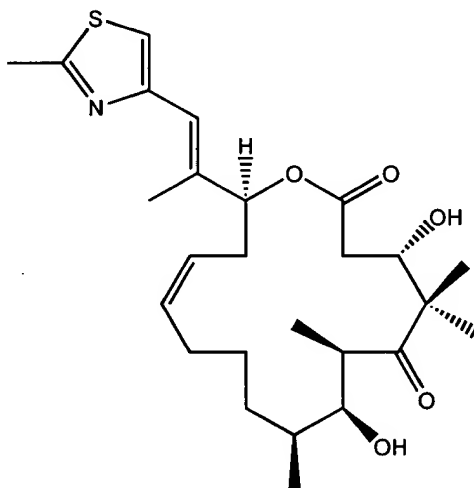
34/91. The pharmaceutical composition of claim 87, wherein in the compound R_1 is linear or branched chain alkyl substituted by hydroxy.

35/92. The pharmaceutical composition of claim 87, wherein in the compound R_1 is linear or branched chain alkyl substituted by NR_4R_5 , wherein R_4 and R_5 are independently H, phenyl, benzyl, or linear or branched chain alkyl.

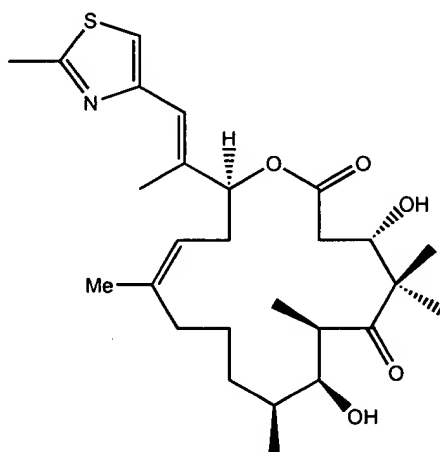
36/93. The pharmaceutical composition of claim 87, wherein in the compound R_1 is linear or branched chain alkyl substituted by cyclic acetal.

37/94. The pharmaceutical composition of claim 87, wherein in the compound R_1 is linear or branched chain alkyl substituted by a substituted carboxy group.

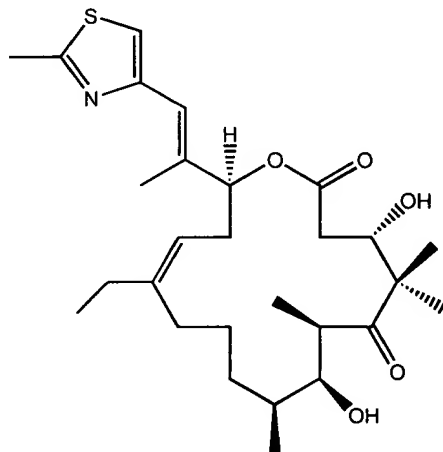
38/95. The pharmaceutical composition of claim 87, wherein in the compound R_1 is hydrogen and the compound has the structure:



96. The pharmaceutical composition of claim ³⁰87, wherein in the compound R₁ is methyl and the compound has the structure:

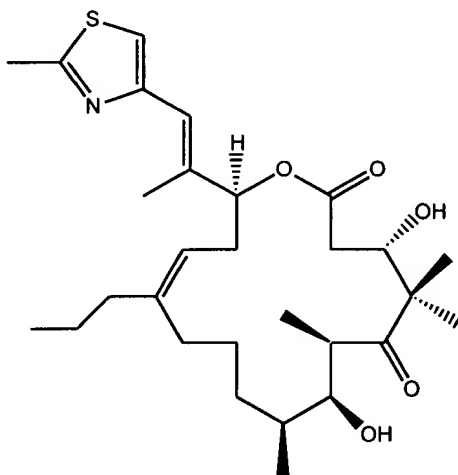


97. The pharmaceutical composition of claim ³⁰87, wherein in the compound R₁ is ethyl and the compound has the structure:



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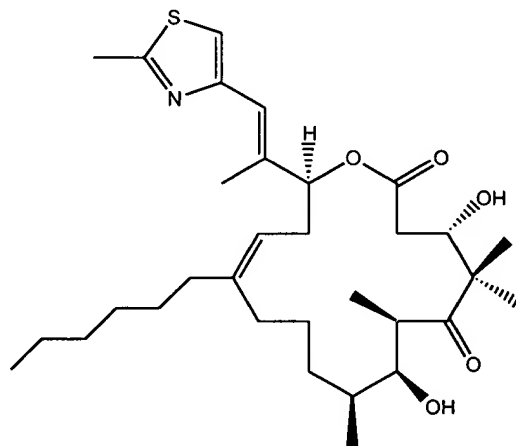
98. The pharmaceutical composition of claim 87, wherein in the compound R_1 is propyl and the compound has the structure:



30b

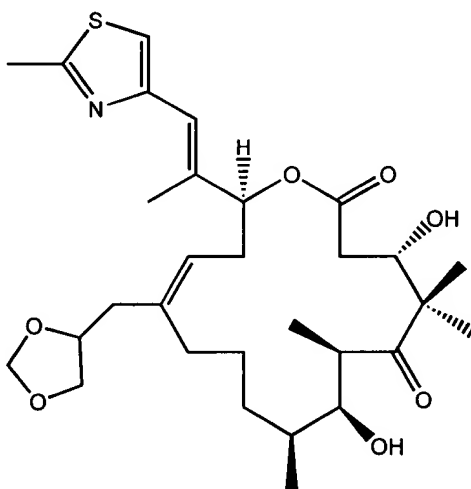
99. The pharmaceutical composition of claim 87, wherein in the compound R_1 is hexyl and the compound has the structure:

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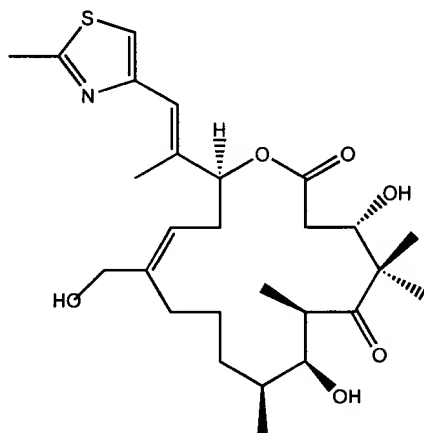
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100. The pharmaceutical composition of claim 87, wherein in the compound R₁ is 2-(1,3-dioxolanyl)methyl and the compound has the structure:

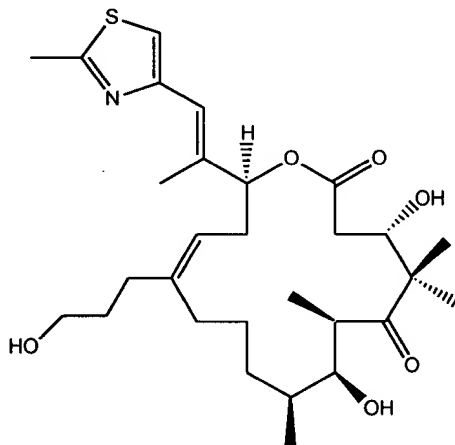


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101. The pharmaceutical composition of claim 87, wherein in the compound R₁ is hydroxymethyl and the compound has the structure:



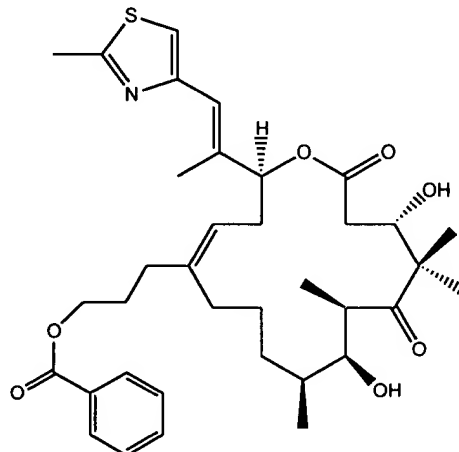
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102. The pharmaceutical composition of claim ³⁰87, wherein in the compound R₁ is hydroxypropyl and the compound has the structure:



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103. The pharmaceutical composition of claim ³⁰87, wherein in the compound R₁ is a linear or branched chain alkyl substituted by aryloxy.

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104. The pharmaceutical composition of claim ³⁰87, wherein in the compound R₁ is a linear or branched chain alkyl substituted by substituted or unsubstituted benzoyloxy.

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105. The pharmaceutical composition of claim ³⁰87, wherein in the compound R₁ is a propyl group substituted by benzoyloxy, and the compound has the structure:



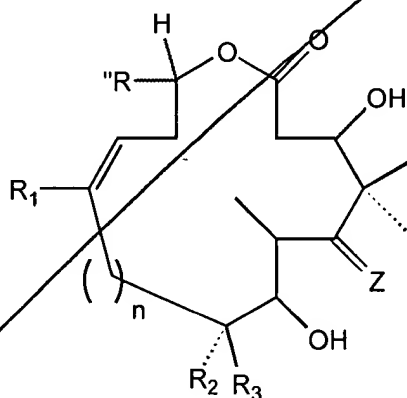
49
106. The pharmaceutical composition of claim ~~81~~ or ~~87~~, wherein the cytotoxic agent is an anticancer agent.

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107. The pharmaceutical composition of claim 106, wherein the anticancer agent is adriamycin.

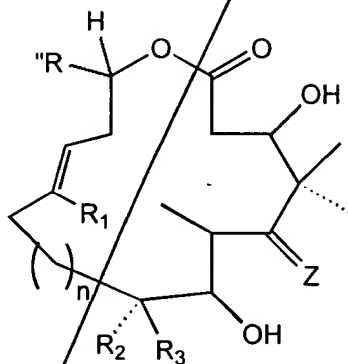
51 49
108. The pharmaceutical composition of claim ~~106~~, wherein the anticancer agent is vinblastin.

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109. The pharmaceutical composition of claim 106, wherein the anticancer agent is paclitaxel.

Sub 110. A method of treating cancer in a subject comprising:
administering to the subject a therapeutically effective amount of a compound having the structure:



or a compound having the structure:



or a pharmaceutically acceptable derivative thereof,

wherein R_1 , R_2 , and R_3 are each independently H, linear or branched chain alkyl, optionally substituted by hydroxy, substituted or unsubstituted alkoxy, substituted or unsubstituted carboxy, carboxaldehyde, substituted or unsubstituted, linear or branched alkyl or cyclic acetal, fluorine, NR_4R_5 , N-hydroximino, or N-alkoxyimino, wherein R_4 and R_5 are independently H, phenyl, benzyl, linear or branched chain alkyl;

R'' is $-CY=CHX$, or H, linear or branched chain alkyl, phenyl, or 2-methyl-1,3-thiazol-4-yl, wherein X is H, linear or branched chain alkyl, phenyl, or 2-methyl-1,3-thiazol-4-yl, and Y is H or linear or branched chain alkyl;

Z is O, $N(OR_6)$ or $N-NR_7R_8$, wherein R_6 , R_7 and R_8 are independently H or a linear or branched chain alkyl or alkoxy; and

n is 0, 1, 2, or 3.

said method optionally further comprising administering a cytotoxic agent.

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111. The ~~compound~~ ^{method} of claim 110, wherein R_1 = hydrogen, methyl, ethyl, propyl, hexyl, 2-(1,3-dioxolanyl)methyl, hydroxymethyl or hydroxypropyl. ^{53 in the compound}

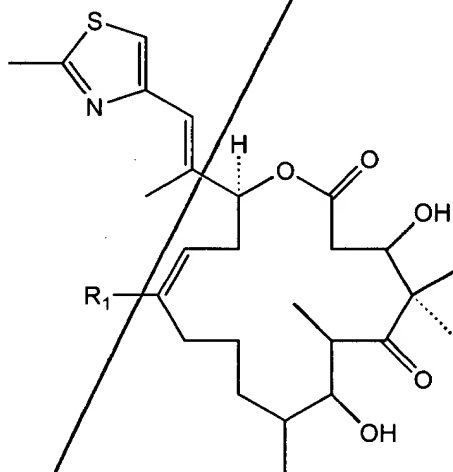
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112. The method of claim 110, wherein in the compound Z = O. ⁵³

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113. The method of claim 110, wherein in the compound R_2 is hydrogen, and R_3 is methyl. ⁵³

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114. The method of claim 110, wherein in the compound n = 3. ⁵³

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115. The method of claim 110, wherein in the compound R¹ is -CY=CHX, and X is 2-methyl-1,3-thiazol-4-yl, and Y is H.

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116. A method for treating cancer in a subject comprising:
administering to a subject a therapeutically effective amount of a compound having the structure:



or a pharmaceutically acceptable derivative thereof,

wherein R₁ is H, linear or branched chain alkyl, optionally substituted by hydroxy, substituted or unsubstituted alkoxy, substituted or unsubstituted carboxy, carboxaldehyde, substituted or unsubstituted, linear or branched alkyl or cyclic acetal, fluorine, NR₄R₅, N-hydroximino, or N-alkoxyimino, wherein R₄ and R₅ are independently H, phenyl, benzyl, linear or branched chain alkyl,

said method optionally further comprising administering a cytotoxic agent.

60 117. The method of claim 116, wherein in the compound R₁ is substituted or unsubstituted, linear or branched chain alkyl.

61 118. The method of claim 116, wherein in the compound R₁ is linear or branched chain alkyl, optionally substituted by hydroxy, fluorine, cyclic acetal, or NR₄R₅, wherein R₄ and R₅ are independently H, phenyl, benzyl, or linear or branched chain alkyl.

62 59
119. The method of claim 116, wherein in the compound R_1 is linear or branched chain alkyl substituted by fluorine.

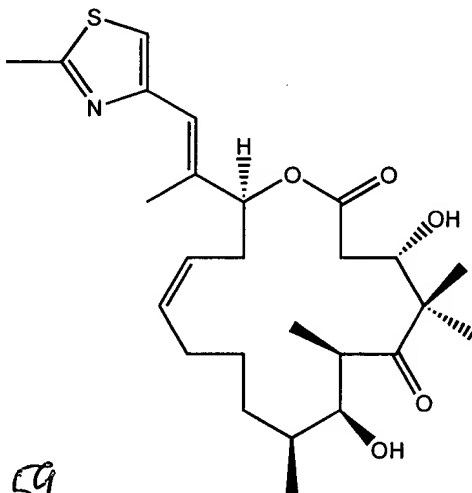
63 59
120. The method of claim 116, wherein in the compound R_1 is linear or branched chain alkyl substituted by hydroxy.

64 59
121. The method of claim 116, wherein in the compound R_1 is linear or branched chain alkyl substituted by NR_4R_5 , wherein R_4 and R_5 are independently H, phenyl, benzyl, or linear or branched chain alkyl.

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122. The method of claim 116, wherein in the compound R_1 is linear or branched chain alkyl substituted by cyclic acetal.

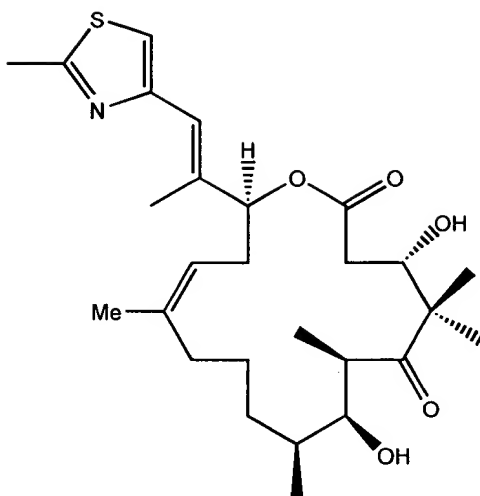
66 59
123. The method of claim 116, wherein in the compound R_1 is linear or branched chain alkyl substituted by a substituted carboxy group.

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124. The method of claim 116, wherein in the compound R_1 is hydrogen and the compound has the structure:

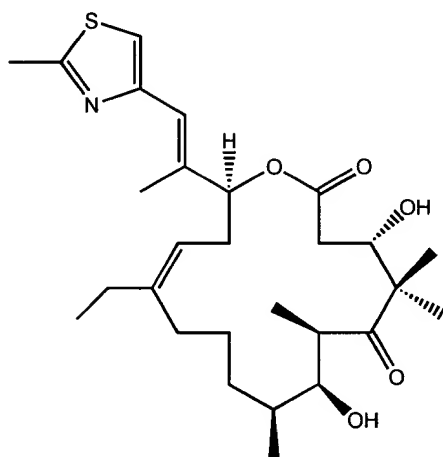


68 59
125. The method of claim 116, wherein in the compound R_1 is methyl and the compound has the structure:

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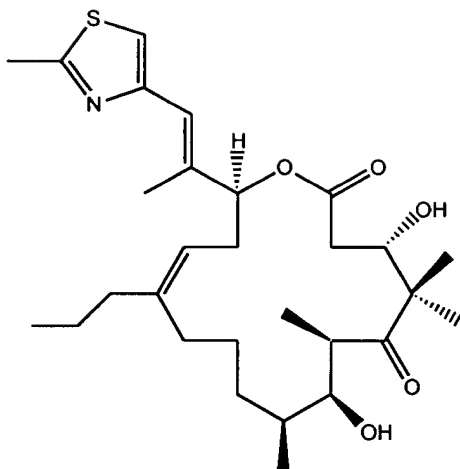


126. The method of claim 116, wherein in the compound R_1 is ethyl and the compound has the structure:



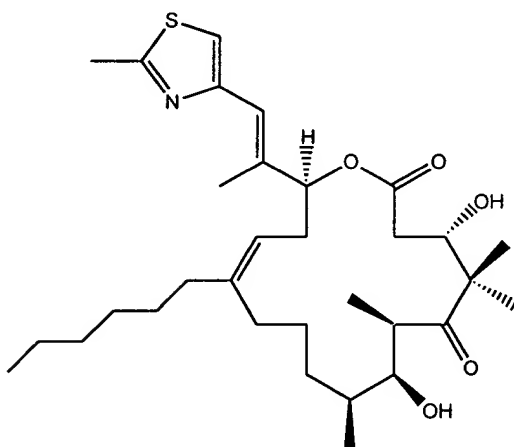
127. The method of claim 116, wherein in the compound R_1 is propyl and the compound has the structure:

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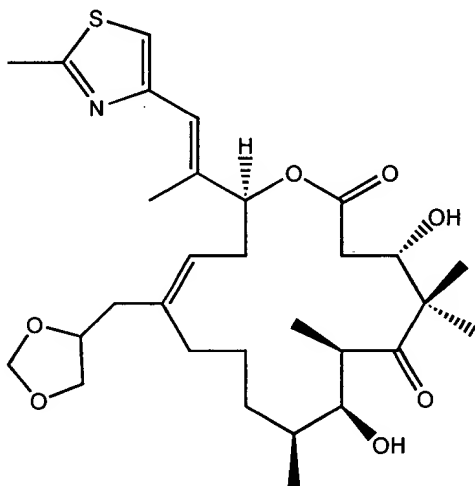
128. The method of claim 116, wherein in the compound R_1 is hexyl and the compound has the structure:



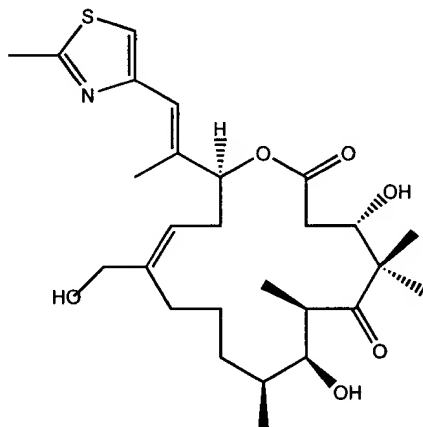
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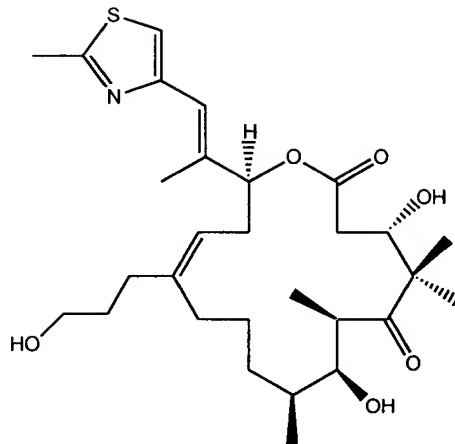
129. The method of claim 116, wherein in the compound R_1 is 2-(1,3-dioxolanyl)methyl and the compound has the structure:



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130. The method of claim 116, wherein in the compound R_1 is hydroxymethyl and the compound has the structure:



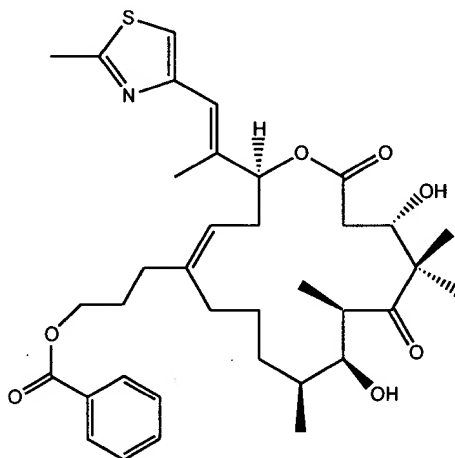
74
131. The method of claim 116, wherein in the compound R_1 is hydroxypropyl and the compound has the structure:



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132. The method of claim 116, wherein in the compound R_1 is a linear or branched chain alkyl substituted by aryloxy.

A2 76 59
133. The method of claim 116, wherein in the compound R_1 is a linear or branched chain alkyl substituted by substituted or unsubstituted benzoyloxy.

77 59
134. The method of claim 116, wherein in the compound R_1 is a propyl group substituted by benzoyloxy, and the compound has the structure:



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135. The method of claim 110 or 116, wherein the method further comprises administering a cytotoxic agent, wherein said cytotoxic agent is an anticancer agent.

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136. The method of claim 135, wherein the anticancer agent administered is adriamycin.

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137. The method of claim 135, wherein the anticancer agent administered is vinblastin.

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138. The method of claim 135, wherein the anticancer agent administered is paclitaxel.

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139. The method of claim 110 or 116, wherein the cancer is a solid tumor.

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140. The method of claim 110 or 116, wherein the cancer is breast cancer, melanoma, leukemia or ovarian cancer.

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141. The method of claim 110 or 116, wherein the therapeutically effective amount of the compound is between about 0.001 mg/kg to about 40 mg/kg of body weight.

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142. The method of claim 110 or 116, wherein the therapeutically effective amount of the compound is between about 0.01 mg/kg to about 40 mg/kg of body weight.

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143. The method of claim 110 or 116, wherein the therapeutically effective amount of the compound is between about 0.001 mg/kg to about 25 mg/kg of body weight.

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144. The method of claim 110 or 116, wherein the therapeutically effective amount of the compound is between about 0.01 mg/kg to about 25 mg/kg of body weight.

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145. The method of claim 110 or 116, wherein the therapeutically effective amount of the compound is between about 0.001 mg/kg to about 10 mg/kg of body weight.

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146. The method of claim 110 or 116, wherein the therapeutically effective amount of the compound is between about 0.01 mg/kg to about 10 mg/kg of body weight.

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